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PERKINS COIE LLP			EXAMINER	
PATENT-SEA			LEE, ANDREW CHUNG CHEUNG	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,978

Applicant(s)

STEPHENS ET AL.

Examiner

Andrew C. Lee

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date 3/10/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action in response to the Application #10527978 filed on 3/10/2005 is entered.

Claim 5 has been canceled by Preliminary Amendment dated 3/10/2005.

Claims 1 – 4, 6 – 25 are hence entered and presented for examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 3/10/2005 was filed, and the submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

3. The abstract of the disclosure is objected to because the abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52 (b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19 – 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Considering claim 19,

To determine whether the claimed subject matter complies with the is eligibility requirement of 35 USC 101, we ask

Does the claimed invention fall within an enumerated statutory category? The answer is "No".

As evidenced at page 6, paragraph [0022] of the specification, in "Aspects of the invention may be stored or distributed on computer-readable media, including magnetically or optically readable computer discs, as microcode on semiconductor memory, nanotechnology memory, or other portable data storage medium. Indeed, computer implemented instructions, data structures, screen displays, and other data under aspects of the invention may be distributed over the Internet or over other networks (including wireless networks), on **a propagated signal on a propagation medium (e.g., an electromagnetic wave(s))**, a sound wave, etc.) over a period of time, or may be provided on any analog or digital network (packet switched, circuit switched or other scheme)." Thus, claim 19 is nothing more than a signal, and a signal is non-statutory subject matter.

In addition, as set forth in the Interim Guidelines page 55, it states that "claims that recite nothing but the physical characteristics of a form of energy or magnetism, per se, and as such as nonstatutory natural phenomena. O'Reily, 56.U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material fails within any of the categories of patentable subject matter set forth in §101", and since claim 19 does not comply with the requirements of the Interim Guideline, it is non-statutory.

Thus, for the above reasons, claims 20 – 25 are also non-statutory, since the claims are dependent upon claim 19.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Vaisanen et al. (US 6560443 B1).

Regarding **claim 10**, Vaisanen et al. disclose a method for distributing access point components in a data communication network, the method comprising: grouping a first set of access point components in each of multiple radio node components (Fig. 2, element 21, col. 7, lines 37 – 64); grouping a second set of access point components in at least one controller node component (Fig. 2, element 22, col. 7, lines 44 – 45, 65 – 67, col. 8, lines 1 – 8); and connecting the radio node components and the at least one controller node component via a communication link (Fig. 2, element 23 control circuit; col. 8, lines 27 – 37); wherein the data communication network is under one of the IEEE 802.11, IEEE 802.15, or IEEE 802.16 network standards ("2.4 GHz DSSS WLAN conforming to the IEEE 802.11 standard"; col. 4, lines 11 – 20).

7. Claim 19 – 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Crosbie (US 20020085719 A1).

Regarding **claim 19**, Crosbie discloses a computer-readable medium whose contents control providing access to a communication network via an access point system ("computer readable or usable medium"; paragraph [0051]) comprising: multiple radio nodes each comprising a first set of access point layers ("access points", "IEEE 802.11 protocol"; Fig.1, Fig. 3, paragraph [0034]); an access point controller in communication with the multiple radio nodes, wherein the access point controller comprises a second set of access point layers distinct from the first set of access point layers, wherein the access point controller is physically separated from at least some of the multiple radio nodes ("roaming server"; paragraphs [0035],[0037]; Fig. 8, paragraph [0090]); and a communication link for connecting the each of the radio nodes to the access point controller ("wireless connection"; paragraph [0036]); wherein the communication network is under one of the IEEE 802 family of network standards ("IEEE 802.11 standard"; paragraph [0037]).

Regarding claim 20, Crosbie discloses the computer-readable medium claimed wherein the computer-readable medium is contained in a physical switch, and wherein the physical switch is distinct from the multiple radio nodes and the access point controller ("a switch"; paragraph [0035]).

Regarding claim 21, Crosbie discloses the computer-readable medium claimed wherein the system controller is contained in a physically distributed hosting function incorporated into at least one of the access point controller and the multiple radio nodes (paragraph [0038]).

Regarding claim 22, Crosbie discloses the computer-readable medium claimed wherein the computer-readable medium is a logical node in a computer network receiving the contents (paragraph [0052]).

Regarding claim 23, Crosbie discloses the computer-readable medium claimed wherein the computer-readable medium is a computer-readable disk ("diskettes"; paragraph [0052]).

Regarding claim 24, Crosbie discloses the computer-readable medium claimed wherein the computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents ("propagated signal"; paragraph [0052]).

Regarding claim 25, Crosbie discloses the computer-readable medium claimed wherein the computer-readable medium is a memory of a computer system ("memory"; paragraph [0049]).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 – 4, 6 – 9, 11 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaisanen et al. (US 6560443 B1) in view of Barber et al. (US 7382756 B2).

Regarding claim 1, Vaisanen et al. disclose a system providing access points to a communication network (Abstract, Fig. 5, Fig. 1, Fig. 2), the system comprising: a first radio node for providing a device with access to the communication network, wherein the radio node has a first set of access point components (Fig. 2, element 21 the first transceiver 2.4 GHz band WLAN module or device according to the IEEE 802.11 standard interpreted as a first radio node for providing a device with access to the communication network; col. 7, lines 37 – 46); a second radio node for providing a device with access to the communication network, wherein the second radio node has a second set of access point components (Fig. 2, element 22 second transceiver Bluetooth module interpreted as a second radio node for providing a device with access to the communication network; col. 7, lines 37 – 46); and wherein the second set of access point components are different from the first set of access point components (" operating in the 2.4 GHz ISM band having 30-50 meter range ...require about 100mW"; col. 2, lines 2 – 11); a controller node coupled to the first radio node and the second radio node via a communication link, wherein the controller node has a third set of access point components complementary to the first and second set of access point components ("element 23 control circuit" interpreted as a controller node coupled to the first radio node and the second radio node via a communication link; Fig. 2, col. 8, lines 27 – 37); and Vaisanen et al. do not disclose explicitly a system controller for controlling the first and second radio nodes, wherein the system controller is configured using a physically distributed hosting function incorporated into at least one of the first radio node, the second radio node, and the controller node, and wherein the system controller is logically centralized.

Barber et al. in the same field of endeavor teach a system controller for controlling the first and second radio nodes, wherein the system controller is configured using a physically distributed hosting function incorporated into at least one of the first radio node, the second radio node, and the controller node, and wherein the system controller is logically centralized ("element 114 Command and Control Center" interpreted as a system controller for controlling the first and second radio nodes; Fig. 2, Fig. 6, col. 9, lines 36 – 57).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Vaisanen et al. to include the features of a system controller for controlling the first and second radio nodes, wherein the system controller is configured using a physically distributed hosting function incorporated into at least one of the first radio node, the second radio node, and the controller node, and wherein the system controller is logically centralized as taught by Barber et al. One of ordinary skill in the art would be motivated to do so for providing management and controls the access points associated with the wireless (as suggested by Barber et al., see col. 4, lines 21 – 22).

Regarding claims 2, 3, 4, 11, 12, 13, Vaisanen et al. disclose the system, method claimed wherein the first set of access point components and the second set of access point components both include only a radio component (Fig 2, col. 7, lines 37 - 46), and wherein the third set of access point components includes a physical layer component (Fig. 2, input/output ports; col. 7, lines 1 – 13), Vaisanen et al. do not disclose explicitly a medium access control (MAC) layer component, and an access point (AP) software component.

Barber et al. in the same field of endeavor teach a medium access control (MAC) layer component ("Medium-Access Control (MAC) layer"); col. 5, lines 52 – 61), and an access point (AP) software component (Fig. 2, col. 9, lines 19 – 35).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Vaisanen et al. to include the features of a medium access control (MAC) layer component, and an access point (AP) software component as taught by Barber et al. One of ordinary skill in the art would be motivated to do so for providing management and controls the access points associated with the wireless (as suggested by Barber et al., see col. 4, lines 21 – 22).

Regarding claim 6, Vaisanen et al. disclose the system claimed wherein the communication link is a wireless link ("wireless communication links"; col. 4, lines 11 – 20).

Regarding claim 7, Vaisanen et al. disclose the system claimed wherein the communication link is a Bluetooth link ("shorter range radio can be one conforming to Bluetooth (BT) radio communication"; col. 4, lines 2 – 4).

Regarding claim 8, Vaisanen et al. disclose the system claimed wherein the communication link is an IEEE 802.11 link ("2.4 GHz DSSS WLAN conforming to the IEEE 802.11 standard"; col. 4, lines 11 – 20).

Regarding claim 9, Vaisanen et al. disclose the system claimed wherein the communication link is a wired link ("wired backbone LAN"; col. 1, lines 52 – 58, Fig. 5).

Regarding **claim 14**, Vaisanen et al. disclose a system providing access to a communication network (Abstract, Fig. 5, Fig. 1, Fig. 2), the system comprising: an access point radio node comprising a first set of access point components (Fig. 2, element 21 the first transceiver 2.4 GHz band WLAN module or device according to the IEEE 802.11 standard interpreted as a first radio node for providing a device with access to the communication network; col. 7, lines 37 – 46); an access point controller node in communication with the access point radio node, wherein the access point controller node comprises a second set of access point components distinct from the first set of access point components (Fig. 2, element 22 second transceiver Bluetooth module interpreted as a second radio node for providing a device with access to the communication network; col. 7, lines 37 – 46; operating in the 2.4 GHz ISM band having 30-50 meter range ...require about 100mW"; col. 2, lines 2 – 11), wherein the access point controller node is physically separated from the access point radio node ("element 23 control circuit" interpreted as access point controller node; Fig. 2, col. 8, lines 27 – 37);

Vaisanen et al. do not disclose explicitly a system controller for controlling at least one of the access point radio node and the access point controller node; and a wireless communication link for connecting the access point radio node, the access point controller node, and the system controller.

Barber et al. in the same field of endeavor teach a system controller for controlling at least one of the access point radio node and the access point controller node; and a wireless communication link for connecting the access point radio node, the access point controller node, and the system controller ("element 114 Command and Control Center"

interpreted as a system controller for controlling the first and second radio nodes; Fig. 2, Fig. 6, col. 9, lines 36 – 57).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Vaisanen et al. to include the features of a system controller for controlling at least one of the access point radio node and the access point controller node; and a wireless communication link for connecting the access point radio node, the access point controller node, and the system controller as taught by Barber et al. One of ordinary skill in the art would be motivated to do so for providing management and controls the access points associated with the wireless (as suggested by Barber et al., see col. 4, lines 21 – 22).

Regarding claim 15, Vaisanen et al. do not disclose explicitly the system claimed wherein the system controller is implemented in a physical switch.

Barber et al. in the same field of endeavor teach the system claimed wherein the system controller is implemented in a physical switch (col. 9, lines 36 – 52).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Vaisanen et al. to include the features of the system claimed wherein the system controller is implemented in a physical switch as taught by Barber et al. One of ordinary skill in the art would be motivated to do so for providing management and controls the access points associated with the wireless (as suggested by Barber et al., see col. 4, lines 21 – 22).

Regarding claim 16, Vaisanen et al. do not disclose explicitly the system claimed wherein the system controller is implemented in a physically distributed hosting function incorporated into at least one of the access point radio node and the access point controller node, and wherein the system controller is logically centralized.

Barber et al. in the same field of endeavor teach the system claimed wherein the system controller is implemented in a physically distributed hosting function incorporated into at least one of the access point radio node and the access point controller node, and wherein the system controller is logically centralized ("centralizing some functions into the CCC"; col. 9, lines 36 – 57, col. 15, lines 30 – 37).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Vaisanen et al. to include the features of the system claimed wherein the system controller is implemented in a physically distributed hosting function incorporated into at least one of the access point radio node and the access point controller node, and wherein the system controller is logically centralized as taught by Barber et al. One of ordinary skill in the art would be motivated to do so for providing management and controls the access points associated with the wireless (as suggested by Barber et al., see col. 4, lines 21 – 22).

Regarding claim 17, Vaisanen et al. do not disclose explicitly the system claimed wherein the access point radio node further comprises a remote link driver configured to extend a bus between a baseband access point component in the access point controller node and a radio access point component in the access point radio node.

Barber et al. in the same field of endeavor teach the system claimed wherein the access point radio node further comprises a remote link driver configured to extend a bus between a baseband access point component in the access point controller node and a radio access point component in the access point radio node ("able to determine the location of each of the other access points .."; Fig. 8, col. 12, lines 33 – 49).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Vaisanen et al. to include the features of the system claimed wherein the access point radio node further comprises a remote link driver configured to extend a bus between a baseband access point component in the access point controller node and a radio access point component in the access point radio node as taught by Barber et al. One of ordinary skill in the art would be motivated to do so for providing management and controls the access points associated with the wireless (as suggested by Barber et al., see col. 4, lines 21 – 22).

Regarding claim 18, Vaisanen et al. disclose do not explicitly the system claimed wherein the access point radio node further comprises a remote link driver configured to carry a digitized radio frequency baseband signal through a tunnel for transport to the access point controller node via the communication link.

Barber et al. in the same field of endeavor teach the system claimed wherein the access point radio node further comprises a remote link driver configured to carry a digitized radio frequency baseband signal through a tunnel for transport to the access point controller node via the communication link ("Communications between the CCC and the access points can be carried out through a secured tunnel (s-tunnel)"; col. 15, lines 56 – 63, Fig. 12, col. 16, lines 15 – 27).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Vaisanen et al. to include the features of the system claimed wherein the access point radio node further comprises a remote link driver configured to carry a digitized radio frequency baseband signal through a tunnel for transport to the access point controller node via the communication link as taught by Barber et al. One of ordinary skill in the art would be motivated to do so for providing management and controls the access points associated with the wireless (as suggested by Barber et al., see col. 4, lines 21 – 22).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Olkkonen et al. (US 6842460 B1).
- b) Heinonen et al. (US 20030112789 A1).
- c) Forslow (US 6973057 B1).
- d) Gernert et al. (US 20030193946 A1).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2619
<8/03/2008>

/Edan Orgad/
Supervisory Patent Examiner, Art Unit 2619